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EXAMINER	
WERNER, DAVID N	

ART UNIT	PAPER NUMBER
2621	

NOTIFICATION DATE	DELIVERY MODE
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

mailroom@bskb.com

Office Action Summary	Application No.	Applicant(s)	
	10/827,471	NONAKA, SHUNICHIRO	
	Examiner	Art Unit	
	David N. Werner	2621	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *05 May 2008*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-20* is/are pending in the application.

4a) Of the above claim(s) *6-8,10 and 12-20* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-5,9 and 11* is/are rejected.

7)☒ Claim(s) *3* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *20080206,20080520*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

1. This Office action for US Patent Application 10/827,471 is responsive to communications filed 05 May 2008, in response to the Non-Final Rejection of 05 February 2008. Currently, claims 1-20 are pending. Of those, claims 6-8, 10, and 12-20 have been withdrawn from consideration.

2. In the previous Office action, claim 11 was rejected under 35 U.S.C. 101 as non-statutory. Claims 1-5, 9, and 11 were rejected under 35 U.S.C. 102(e) as anticipated by US 7,143,432 B1 (Brooks et al.).

Response to Arguments

3. Applicant's arguments filed with respect to the rejection of claim 11 as non-statutory have been fully considered but they are not persuasive. Applicant has amended claim 11 to recite "A computer-readable medium storing instructions, executed by a computer" to execute a method. The computer-readable medium finds no support in the specification, which describes the invention in terms of abstract "units" or "means" within a server, without providing any clue as to their physical implementation, or as computer "programs" *per se*, such as in page 1: lines 15-17, page 10: lines 4-6, or page 16: lines 16-18.

4. Applicant's arguments filed with respect to the rejection of claim 1 under 35 U.S.C. 102(e) have been fully considered but they are not persuasive. Applicant argues that Brooks et al. does not teach the claimed limitation of compressing multimedia

frames in a format "that enables interactive serial display of every frame". It is respectfully submitted that "interactive serial display of every frame" is known in the art as "trick play" and encompasses notoriously well-known operations such as slow playback, pause, fast-forward, and reverse playback. All of the codecs listed in column 6: lines 13-19 of Brooks et al. were known at the time of the present invention to be playable in a trick play mode. Therefore, the examiner respectfully maintains the rejection of claim 1.

Specification

5. The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter. See 37 CFR 1.75(d)(1) and MPEP § 608.01(o). Correction of the following is required: the specification does not disclose the claimed "computer-readable medium" of claim 11, instead only defining a computer-executable "program" in page 1: lines 15-17, page 10: lines 4-6, and page 16: lines 16-18.

Claim Rejections - 35 USC § 101

6. 35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

7. Claim 11 is rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

The relevant portions of the USPTO "Interim Guidelines for Examination of Patent Applications for Patent Subject Matter Eligibility" (Official Gazette Notice of 22 November 2005), Annex IV, read as follows:

> Descriptive material can be characterized as either "functional descriptive material" or "nonfunctional descriptive material. In this context, "functional descriptive material" consists of data structures and computer programs which impart functionality when employed as a computer component. (The definition of "data structure" is a physical or logical relationship among data elements, designed to support specific data manipulation functions", *The New IEEE Standard Dictionary of Electrical and Electronics Terms 308* (5th Ed. 1993).) "Nonfunctional descriptive material" includes but is not limited to music, literary works, and a compilation or mere arrangement of data.
>
> When functional descriptive material is recorded on some computer-readable medium, it becomes structurally and functionally interrelated to the medium and will be statutory in most cases since use of technology permits the function of the descriptive material to be realized. Compare *In re Lowry*, 32 F.3d 1579, 1583-84, 32 USPQ 2d 1031, 1035 (Fed. Cir. 1994) (claim to data structure stored on a computer readable medium that increase computer efficiency held statutory) and *Warmerdam*, 33 F.3d at 1360-61, 31 USPQ 2d at 1759 (claim to computer having a specific data structure stored in memory held statutory product-by-process claim) with *Warmerdam*, 33 F.3d at 1361, 31 USPQ2d at 1760 (claim to a data structure *per se* held nonstatutory).
>
> In contrast, a claimed computer-readable medium encoded with a computer program is a computer element which defines structural and functional interrelationships between the computer program and the rest of the computer which permit the computer program's functionality to be realized, and is thus statutory. See *Lowry*, 32 F.3d at 1583-84, 32 USPQ2d at 1035.

Claim 11 defines a "computer-readable medium storing instructions, executed by a computer". Ordinarily, the claim would be statutory. However, the specification does not encompass statutory computer-readable media, but at page 1: line 14, merely "programs", which may be interpreted as non-statutory embodiments as a signals, a written sheet of paper describing the programs in pseudocode, or computer programs *per se*. Because the full scope of the claims as properly read in light of the disclosure encompasses non-statutory subject matter, the claims as a whole are non-statutory.

Claim Rejections - 35 USC § 112

8. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

9. Claims 1, 3, 9, and 11 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

10. Claims 1, 9, and 11 recite a step of "sampling frames from a moving image", followed by "display of every frame". However, the specification, in page 27: lines 14-25, defines "sampling" as a process that eliminates frames from the moving image, making it impossible to display "every" frame after sampling. Therefore, claims 1, 9, and 11 are self-contradictory. It is suggested that the phrase "every frame" at the end of claims 1, 9, and 11 be amended to read "every sampled frame".

11. Claim 3 recites the limitation "the vector graphic animation based format" in the last line in the claim. There is insufficient antecedent basis for this limitation in the claim. It is suggested that the phrase "the vector graphic animation based format" be amended to read "a vector graphic animation based format".

Claim Rejections - 35 USC § 102

12. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the

> applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

13. Claims 1, 2, 4, 5, 9, and 11 are rejected under 35 U.S.C. 102(e) as being clearly anticipated by US Patent 7,143,432 B1 (Brooks et al.). Brooks et al. teaches a video transcoder that produces a reduced bit-rate version of a plurality of video frames. Regarding claim 1, a first embodiment of Brooks et al. includes a “frame reducing circuit” that reduces a number of video frames according to a desired output frame rate (column 3: lines 23-27). This corresponds with the claimed “sampling means”. This embodiment also includes an encoder that encodes a plurality of video frames to a desired output video stream format (column 3: lines 36-39). This corresponds with the claimed “multimedia image generation means”. The output streams may be in the MPEG1, MPEG2, MPEG4, Microsoft Windows .avi format, Apple QuickTime .mov format, or RealNetworks .rm format (column 6: lines 13-19), all of which were known at the time of the present invention to use coding that takes advantage of spatial redundancy within a single image, such as the Discrete Cosine Transform or the Wavelet transform, and to be capable of "interactive serial display" of sequential frames, such as in a trick playback mode like pause or fast-forward.

Regarding claim 2, as shown in figure 1 of Brooks et al., a plurality of video output formats are produced, according to the available bandwidth, processing, and display capabilities of the client devices (column 6: lines 27-31).

Regarding claim 4, in Brooks et al., a depth reduction circuit is configured to reduce the bit rate of the output video (column 3: lines 27-31).

Regarding claim 5, the output devices of Brooks et al. include a variety of portable or mobile devices, including PDAs and cellular phones (column 5: lines 39-52).

Regarding claim 9, figure 6 of Brooks et al. illustrates the method performed, including frame rate comparison step 870 and rate changing steps 880 and 890 (column 18: lines 19-51), corresponding with the claimed step of "sampling frames", as well as encoding format decision step 930 and encoding step 940 (column 19: lines 41-55), corresponding with the claimed step of "generating a multimedia image".

Regarding claim 11, the encoders of Brooks et al. may be implemented by software routines (column 19: lines 56-58).

Claim Rejections - 35 USC § 103

14. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

15. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Brooks et al. in view of US Patent Application Publication 2005/0063596 A1 (Yomdin et al.).

Regarding claim 3, in Brooks et al., a resolution modification circuit modifies resolution of the output video frames (column 3: lines 15-23). This corresponds with the claimed "size change means". As previously mentioned, Brooks et al. includes an encoder that encodes the video to be output in a desired format (column 3: lines 36-39). This corresponds with the claimed "frame compression means" and "format compilation

means". Additionally, the Examiner takes Official Notice that in an embodiment of Brooks et al. that produces video in at least MPEG-1, MPEG-2, or MPEG-4, the video is automatically divided into "image data sets of respective frames" known as Groups of Pictures (GOPs), each starting with an independently coded frame followed by about a dozen dependent frames. This structure is used to take advantage of temporal redundancy between frames, while still allowing for insertion points for trick play modes and preventing error propagation. However, while MPEG-4, in particular, was known to support vector graphics, for example in the Animation Framework eXtension (AFX), it is unknown if a transcoder from a "raw data set" of moving images to this format was available at the time of the present invention.

Yomdin et al. teaches a system for encoding moving images in a vector animation format called VIM, which is capable of photorealistic vector graphics (paragraphs 0132-0133). Regarding claim 3, in one embodiment of Yomdin et al., a VIM transcoder is disclosed (paragraphs 0856-0859). This transcoder supports MPEG input (paragraph 0858), and so corresponds with the claimed "format compilation means" if placed at the output of the Brooks et al. encoder.

Brooks et al. discloses the claimed invention except for producing vector graphics. Yomdin et al. teaches that it was known to transcode conventional digital moving images into a vector animation format. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to convert the compressed data of Brooks et al. to the VIM format, as taught by Yomdin et al., since

Yomdin et al. states in paragraphs 0133 and 0858 that such a modification would reduce the data size of the video, compared with a conventional raster format.

Conclusion

16. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to David N. Werner whose telephone number is (571)272-9662. The examiner can normally be reached on Monday-Friday from 10:00-6:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mehrdad Dastouri can be reached on (571) 272-7418. The fax phone

number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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